

We claim:

1                   1. A method for processing multimedia data in a Radio Link Protocol  
2 (RLP) layer of a wireless packet network, said method comprising the steps of:  
3                   processing said multimedia data to determine if said multimedia data is  
4 properly received; and  
5                   forwarding erasure data frames with said multimedia data to a Point-to-  
6 Point Protocol (PPP) layer.

1                   2. The method of claim 1, further comprising the step of forwarding a  
2 location indicator of said erasure frames to said PPP layer.

1                   3. The method of claim 1, further comprising the step of representing  
2 said erasure data frames in a predefined form.

1                   4. The method of claim 3, wherein said predefined form is the original  
2 received data frames.

1                   5. The method of claim 3, wherein said predefined form is a binary  
2 pattern comprised of all ones.

1                   6. The method of claim 3, where said predefined form is a binary pattern  
2 comprised of all zeroes.

1                   7. A method for processing multimedia data in a Point-to-Point  
2 Protocol (PPP) layer of a wireless packet network, said method comprising the steps of:  
3                   receiving erasure data frames with said multimedia data from a Radio  
4 Link Protocol (RLP) layer; and  
5                   replacing said erasure data frames with a predefined binary value.

1 8. The method of claim 7, wherein said predefined binary value is an all  
2 zeroes pattern.

1 9. The method of claim 7, wherein said predefined binary value is an all  
2 ones pattern.

1 10. The method of claim 7, wherein said predefined binary value is the  
2 original received data frames.

1 11. The method of claim 7, further comprising the step of receiving a  
2 location indicator of said erasure frames from said RLP layer.

1 12. The method of claim 11, further comprising the step of using said  
2 location indicator to detect if a packet header is corrupted.

1 13. The method of claim 12, further comprising the step of forwarding a  
2 packet payload to a higher layer if a valid header is received.

1 14. The method of claim 12, further comprising the step of forwarding a  
2 packet payload to a higher layer if a valid header is received even if said packet payload  
3 is not properly received.

1 15. The method of claim 12, where the PPP layer updates the location  
2 indicator and forwards it to a higher layer if a valid header is received.

1 16. A method for processing multimedia data in a receiver of a  
2 wireless packet network, said receiver conforming to an open system interconnection  
3 (OSI) model, said OSI model having a plurality of layers including a Radio Link Protocol  
4 (RLP) layer, a set of interface layers and a User Datagram Protocol (UDP) layer, said  
5 method comprising the steps of:

6 processing said multimedia data to determine if said multimedia data is  
7 properly received; and  
8 communicating error information between said RLP and UDP layers.

1 17. The method of claim 16, wherein said RLP layer forwards an erasure  
2 data frame to said set of interface layers.

1 18. The method of claim 17, further comprising the step of forwarding  
2 packets with erasure data frames to said UDP layer.

1 19. The method of claim 16, wherein said RLP layer forwards an  
2 indication of a location of erasure data to said UDP layer.

1 20. The method of claim 19, further comprising the step of updating the  
2 location of said erasure data and forwarding it to said UDP layer.

1 21. A system for processing multimedia data in a Radio Link Protocol  
2 (RLP) layer of a wireless packet network, said system comprising:  
3 a memory for storing computer readable code; and  
4 a processor operatively coupled to said memory, said processor configured  
5 to:  
6 process said multimedia data to determine if said multimedia data is  
7 properly received; and  
8 forward erasure data frames with said multimedia data to a Point-to-Point  
9 Protocol (PPP) layer.

1 22. The system of claim 21, wherein said processor is further configured  
2 to forward a location indicator of said erasure frames to said PPP layer.

1 23. A system for processing multimedia data in a Point-to-Point Protocol  
2 (PPP) layer of a wireless packet network, said system comprising:

3 a memory for storing computer readable code; and  
4 a processor operatively coupled to said memory, said processor configured  
5 to:  
6 receiving erasure data frames with said multimedia data from a Radio  
7 Link Protocol (RLP) layer; and  
8 replacing said erasure data frames with a predefined binary value.

1 24. The system of claim 23, wherein said predefined binary value is an all  
2 zeroes pattern.

1 25. The system of claim 23, wherein said predefined binary value is an all  
2 ones pattern.

1 26. The system of claim 23, wherein said predefined binary value is the  
2 original received data frames.

1 27. The system of claim 23, wherein said processor is further configured  
2 to receive a location indicator of said erasure frames from said RLP layer.

1 28. The system of claim 27, wherein said processor is further configured  
2 to use said location indicator to detect if a packet header is corrupted.

1 29. The system of claim 28, wherein said processor is further configured  
2 to forward a packet payload to a higher layer if a valid header is received.

1 30. The system of claim 28, wherein said processor is further configured  
2 to forward a packet payload to a higher layer if a valid header is received even if said  
3 packet payload is not properly received.

1           31. A system for processing multimedia data in a receiver of a wireless  
2 packet network, said receiver conforming to an open system interconnection (OSI)  
3 model, said OSI model having a plurality of layers including a Radio Link Protocol  
4 (RLP) layer a set of interface layers and a User Datagram Protocol (UDP) layer, said  
5 system comprising:

6           a memory for storing computer readable code; and  
7           a processor operatively coupled to said memory, said processor configured  
8 to:

9           processing said multimedia data to determine if said multimedia data is  
10 properly received; and

11          communicating error information between said RLP and UDP layers.

1           32. The system of claim 31, wherein said RLP layer forwards an erasure  
2 data frame to said UDP layer.

1           33. The system of claim 31, wherein said RLP layer forwards an  
2 indication of a location of erasure data to said UDP layer.